DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary **Report No:** WIR-006167 Address: 333 Burma Road **Date Inspected:** 04-Apr-2009

City: Oakland, CA 94607

OSM Arrival Time: 1845 **Project Name:** SAS Superstructure **OSM Departure Time:** 645 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

CWI Name: Sun Bo **CWI Present:** Yes No Yes **Inspected CWI report:** N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes N/A **Approved Drawings:** Yes No **Approved WPS:** No Yes N/A **Delayed / Cancelled:** No

34-0006 **Bridge No: Component: OBG & Tower**

Summary of Items Observed:

Summary of Items Observed: On this date Caltrans OSM Quality Assurance (QA) Inspector, Larry Viars was present during the times noted above for observations relative to the work being performed.

Bay 2-

This QA Inspector (Larry Viars) observed the following work in progress: FCAW welding of weld joints 007 and 008 located on OBG Floor Beam FB011-029. ZPMC welder was identified as 062708. ZPMC QC is identified Liu Wei Wei. The welding appeared to be in conformance with welding procedure specification, WPS-B-T-2133.

Bay 9-

Gantry 2 / PMT 1

The Caltrans QA Inspector (Larry Viars) monitored the OBG Production Monitoring Test (PMT) for Deck Panels DP160-001 (11DW) and 188-001 (11EW). The Caltrans QA inspector recorded amperage, voltage and travel speed of the Gas metal Arc Welding (GMAW) root pass and the Submerged Arc Welding (SAW) cover pass. A Visual inspection of the fit up, tack welds, root pass and cover pass was performed by ZPMC QC Sun Bo, American Bridge Flour (ABF) Huang Wen Guang and the Caltrans QA. The Caltrans QA observed ZPMC QC Xu Wei performed Ultrasonic testing of the Partial Joint Penetration weld for depth of penetration. Mr. Xu found the depth of penetration of the PMT welds to be in compliance with contract documents. The Caltrans QA inspector

WELDING INSPECTION REPORT

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designated locations for Macroetch samples (15 locations). Macroetch samples were evaluated with a 7x optical comparator and accepted by ZPMC QC, ABF QC and the Caltrans QA Inspector.

ZPMC tack welds MT for production panels:

DP160-001(11DW): 300 tack welds with 51 indications. DP188-001(11EW): 210 tack welds with 5 indications.

ZPMC performed MT of excavation areas of tack welds for DP160-001 and DP188-001 tack welds and found them to be acceptable.

Bay 11-

This QA inspector (Larry Viars) performed Magnetic Particle Testing (MT) of approximately 15% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated an MT report for this date. The member is identified as Lift 1 East Tower Skin D to E. The weld identification number is ESD1-A165 E/J 265A.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

Summary of Conversations:

Only general conversations between QC and QA this date.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang 150 0042 2372, who represents the Office of Structural Materials for your project.

| Inspected By: | Viars,Larry | Quality Assurance Inspector |
|---------------|----------------|-----------------------------|
| Reviewed By: | Carreon,Albert | QA Reviewer |